Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

Claims 1-27 (canceled)

Claims 28-60 (canceled)

61. (new) A parallel screening method of determining the pharmacological effect of a substance on the activity of different biological target molecules contained in test cells of the same type, comprising:

(a) applying a defined amount of a test substance to test cells of the same type which differ in that they contain different biological target molecules;

(b) measuring the effect of the substance on the biological activities of said different target molecules using a detection system; and

(c) directly or indirectly comparing the effect of said test substance on the biological activities of said different target molecules;

wherein said biological activities are selected from the group consisting of metabolic-coupled signal transduction, receptor-coupled signal transduction, one or more pathological effects, and any combination thereof.

62. (new) The method of claim 61, wherein said biological activity is metabolic-coupled signal transduction.

63. (new) The method of claim 62, wherein said different target molecules include Ras, Bcl-2 or Raf, or any combination thereof.

64. (new) The method of claim 63, wherein said different target molecules include Ras.

65. (new) The method of claim 63, wherein said different target molecules include Bcl-2.

66. (new) The method of claim 63, wherein said different target molecules include Raf.

67. (new) The method of claim 61, wherein said biological activity is receptor-coupled signal transduction.

68. (new) The method of claim 67, wherein said different target molecules include receptor tyrosine kinases, serine/threonine kinases, integrin receptors, receptors of class LIF, oncostatin M, CNTF, gp130, receptor phosphatases, cytokine receptors, G-protein coupled receptors, neurokinin receptors, or serotonin receptors, or any combination thereof.

69. (new) The method of claim 67, wherein said different target molecules include EGF, HGF, HER2, KDR, neurokinin-1, neurokinin-2, or $5HT_2$, or any combination thereof.

70. (new) The method of claim 69, wherein said different target molecules include EGF.

71. (new) The method of claim 69, wherein said different target molecules include HGF.

72. (new) The method of claim 69, wherein said different target molecules include HER2.

73. (new) The method of claim 69, wherein said different target molecules include KDR.

74. (new) The method of claim 69, wherein said different target molecules include neurokinin-1.

75. (new) The method of claim 69, wherein said different target molecules include neurokinin-2.

76. (new) The method of claim 69, wherein said different target molecules include $5HT_2$.

77. (new) The method of claim 61, wherein said biological activity is one or more pathological effects.

78. (new) The method of claim 77, wherein said biological activity is either proliferation or apoptosis or a combination thereof.

79. (new) The method of claim 78, wherein said biological activity is proliferation.

80. (new) The method of claim 78, wherein said biological activity is apoptosis.

81. (new) The method of claim 61, wherein said test cells are transformed with DNA operably encoding said different target molecules.

82. (new) The method of claim 81, wherein said different target molecules are receptors.

83. (new) The method of claim 61, wherein said detection system is selected from a group consisting of a proliferation assay, an apoptosis assay, a reporter gene expression system, and any combination thereof.

84. (new) The method of claim 83, wherein said reporter gene is selected from the group consisting of luciferase, green fluorescent protein, alkaline phosphatase, β-glucuronidase, chloramphenicol-acetyltransferase, and any combination thereof.

85. (new) The method of claim 84, wherein said reporter gene is luciferase.

86. (new) The method of claim 84, wherein said reporter gene is green fluorescent protein.

87. (new) The method of claim 61, wherein said test cells are mammalian cells.

88. (new) The method of claim 87, wherein said test cells are human cells.

89. (new) The method of claim 61, wherein said test cells have the same genotype.

90. (new) A parallel screening method of determining the pharmacological effect of a substance on the activity of the same biological target molecule contained in test cells of different types or of the same type but with a different state of differentiation or activation, comprising:

(a) applying a defined amount of a test substance to test cells of different types or test cells of the same type but with a different state of differentiation or activation wherein said test cells contain the same biological target molecule;

(b) measuring the effect of the substance on the biological activity of said target molecule using a detection system; and

(c) directly or indirectly comparing the effect of said test substance on the biological activity of said target molecule in said test cells;

wherein said biological activity is selected from the group consisting of metabolic-coupled signal transduction, receptor-coupled signal transduction, and a pathological effects.

91. (new) The method of claim 90, wherein said biological activity is metabolic-coupled signal transduction.

92. (new) The method of claim 91, wherein said target molecule is selected from the group consisting of Ras, Bcl-2, and Raf.

93. (new) The method of claim 92, wherein said target molecule is Ras.

94. (new) The method of claim 92, wherein said target molecule is Bcl-2.

95. (new) The method of claim 92, wherein said target molecule is Raf.

96. (new) The method of claim 90, wherein said biological activity is receptor-coupled signal transduction.

97. (new) The method of claim 96, wherein said target molecule is selected from the group consisting of receptor tyrosine kinases, serine/threonine kinases, integrin receptors, receptors of class LIF, oncostatin M, CNTF, gp130, receptor phosphatases,

cytokine receptors, G-protein coupled receptors, neurokinin receptors, and serotonin receptors.

98. (new) The method of claim 96, wherein said target molecule is selected from the group consisting of EGF, HGF, HER2, KDR, neurokinin-1, neurokinin-2, and $5HT_2$.

99. (new) The method of claim 98, wherein said target molecule is EGF.

100. (new) The method of claim 98, wherein said target molecule is HGF.

101. (new) The method of claim 98, wherein said target molecule is HER2.

102. (new) The method of claim 98, wherein said target molecule is KDR.

103. (new) The method of claim 98, wherein said target molecule is neurokinin-1.

104. (new) The method of claim 98, wherein said target molecule is neurokinin-2.

105. (new) The method of claim 98, wherein said target molecule is $5HT_2$.

106. (new) The method of claim 90, wherein said biological activity is a pathological effect.

107. (new) The method of claim 106, wherein said pathological effect is either proliferation or apoptosis.

108. (new) The method of claim 107, wherein said pathological effect is proliferation.

109. (new) The method of claim 107, wherein said pathological effect is apoptosis.

110. (new) The method of claim 90, wherein said target cells are transformed with DNA operably encoding said target molecule.

111. (new) The method of claim 110, wherein said target molecule is a receptor.

112. (new) The method of claim 90, wherein said detection system is selected from a group consisting of a proliferation assay, an apoptosis assay, a reporter gene expression system, and any combination thereof.

113. (new) The method of claim 112, wherein said reporter gene is selected from the group consisting of luciferase, green fluorescent protein, alkaline phosphatase, β-glucuronidase, chloramphenicol-acetyltransferase, and any combination thereof.

114. (new) The method of claim 113, wherein said reporter gene is luciferase.

115. (new) The method of claim 113, wherein said reporter gene is green fluorescent protein.

116. (new) The method of claim 90, wherein said test cells are mammalian cells.

117. (new) The method of claim 116, wherein said test cells are human cells.

118. (new) The method of claim 90, wherein said test cells are from different cell types.

119. (new) The method of claim 90, wherein said test cells are of the same type, but with different states of differentiation or activation.

120. (new) The method of claim 119, wherein said test cells are tumor cells and normal cells.